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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,018	03/27/2001	Ryuichi Ebinuma	35.G2758	7324

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EXAMINER

NGUYEN, HUNG

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,018

Applicant(s)

EBINUMA ET AL.

Examiner

Hung Henry V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-46 and 48-51 is/are rejected.
- 7) ☒ Claim(s) 9 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group II (claims 12, 13, 25, 26, 32, 33, 50 and 51 in Paper No. 7 is acknowledged. Upon reconsideration of the Restriction Requirement made 10/2/2002 and in view of Applicant's response filed October 29, 2002, the Newly Assigned Examiner has decided it would be more beneficial to the Office, Applicant and Public to examine all claims as originally filed, and avoid the possibility of multiple patents to relatively the same invention. Accordingly, the restriction made October 2, 2002 is hereby vacated.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 7, 20, 29, 36-37 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 7, 20, 46, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

5. As to claims 29, and 36-37 the recitation of "wherein... the first supporting member does not contact the second supporting member in the optical axial direction of the optical element" is ambiguous and not clearly understood.

Drawings

6. Figure 11 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-8, 10-21, 23-46, 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art of Fig. 11 in view of Spinali (U.S.Pat. 6,118,599).

With respect to claims 14-20, 24-26, 27-28 and 30-32, AAPA of fig. 11 discloses a supporting structure for supporting an optical element comprising: an optical element (101), a first supporting member (103) for supporting the optical element; a second supporting member (105) for supporting the first supporting element.

With respect to claims 1-8, 10-13, 21, 29 and 34-46, 48-51, AAPA of fig. 11 further teaches a retaining ring placed between the first and second supporting member. AAPA of fig. 11 does not expressly disclose the first supporting member, the second supporting material and the retaining ring being made of materials as specifically recited in the above mentioned

claimed. Spinali discloses hybrid optical barrel for supporting optical element where the optical barrel is made of material having characteristic of low coefficient of thermal expansions such as Ultra Low Expansion TM glass, Zerodur glass, silicon carbide or alternatively, Invar (see col.4, lines 5-20). Further Spinali teaches barrel (220), and connecting barrel member (216) having a plurality of spacing members (218) for supporting lenses (208) where the spacing member is made of a material having a coefficient of thermal expansion ($<3,0$ ppm/K), the barrel (220) is made of brass or stainless steel for the purpose of reducing the overall displacement of the lenses due to the axial displacement of the optical barrel (200) caused by the temperature change.

This provides a clear suggestion that it would have obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of AAPA of Fig.11 and Spinali to obtain the invention as specified in the instant claims. It would have been obvious to a skilled artisan to employ the materials as suggested by Spinali to make the first supporting member, the second supporting member and the retaining member displaced between the first and second supporting members of the supporting structure of AAPA of fig.11. The motivation of doing so would have been to minimize the overall displacement of the optical element as suggested and thus improving the quality of the exposure device.

Further, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

9. Claims 9 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim

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and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record either alone or in combination, neither discloses nor make obvious the elastic member with particular structure and specific connections between it and the first supporting member, and the second supporting member as recited.

Prior Art Made of Record

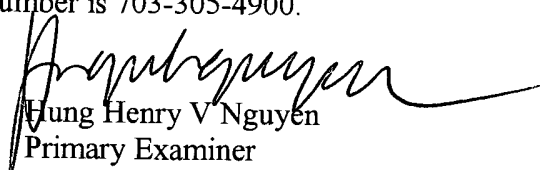
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ikedda (U.S.Pat. 6,043,863) , Bacich (U.S.Pat. 4,733,945), Yamada (U.S.Pat. 4,723,833) and McCrary (U.S.Pat. 6,108,145) discloses lens holding systems, each of which comprises substantially all basic structures as recited in the instant claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


Hung Henry V Nguyen
Primary Examiner
Art Unit 2851

hvn
January 17, 2003